

REPLICA NETWORK FOR LINEARIZING SWITCHED CAPACITOR CIRCUITS

ABSTRACT OF THE DISCLOSURE

The present invention relates to a replica network for linearizing switched capacitor circuits. A bridge circuit with a MOSFET resistor disposed in a resistor branch of the bridge circuit is provided. A noninverting terminal of an operational amplifier is connected to a first node of the bridge circuit and an inverting terminal of the operational amplifier is connected to a second node of the bridge circuit. The second node is separated from the first node by another node of the bridge circuit. An output of the operational amplifier is provided to a gate terminal of the MOSFET resistor and to the gate terminal of the MOSFET switch in a switched capacitor circuit, thereby controlling the resistance of the MOSFET switch so that it is independent of the signal voltage. In this manner, the replica network of the present invention linearizes the switched capacitor circuit. In this manner, the replica network of the present invention linearizes the switched capacitor circuit.

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